UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Animal Disease Eradication Branch

Cresylic Disinfectant as Permitted Disinfectant

Commercial standard CS71-41, Group I, of the National Bureau of Standards is designed to cover a product which will meet the specifications provided by sec. 71.11, Chapter I, Title 9, Code of Federal Regulations, which reads as follows:

Sec. 71.11 Cresylic disinfectant as permitted disinfectant; specifications. The following specifications will be employed for determining the suitability of cresylic disinfectant for use under the provisions of Section 71.10(b) (3):

(a) The product shall remain a uniform liquid when held at 0°C. (32°F.) for 3 hours (Chill test).

PROCEDURE - CHILL TEST

A test tube, approximately 180 by 20 millimeters, is half filled with the sample, stoppered, and immersed at least three-fourths in a bath held at 0°C. (32°F.) for 3 hours. The contents of the tube immediately after withdrawal from the bath should flow when the tube is tilted and should show no separation of soap, either in mass or as a pronounced turbidity.

(b) The product shall dissolve completely in 30 parts of distilled water at 25°C. (77°F.) within 2 minutes (solution-rate test), producing a solution entirely free from globules and not more than faintly opalescent (solubility-degree test).

PROCEDURE - SOLUTION RATE TEST

An ordinary 250 cubic centimeter glass-stoppered graduated cylinder about 300 cubic centimeters to the neck, is filled nearly to the neck with distilled water at 25°C. (77°F.) and a single ordinary "marble" measuring 12 to 14 millimeters in diameter is dropped in. Ten cubic centimeters of the sample free from froth, is rapidly poured from a graduate into the cylinder without touching its walls. The cylinder is quickly filled to overflowing with more distilled water at the same temperature and the stopper is inserted without entrapping any air; then the cylinder is held vertically between the hands and inverted sharply every 2.5 seconds--that is, brought through a complete cycle of positions in each 5 seconds. At the expiration of 2 minutes counting from the first contact, the result should be a practically clear solution in which no jelly particles or globules of the undissolved sample are present. The test is valid only when the first inversion is made before any of the sample has fallen to the bottom of the cylinder and formed a layer thereon.

(c) The product shall contain not more than 25 percent of inert ingredients (water and glycerin), not more excess alkali than the equivalent of 0.5 percent of sodium hydroxide, and not less than 21 percent of soap exclusive of water, glycerin, and excess alkali.

(d) The product shall contain not less than 50 percent and not more than 53 percent of total phenols. It shall contain less than 5 percent of benzophenol (C_6H_5OH).

Any suitable glycerids, fatty acid, or resin acid may be used in preparing the soap, but not all are suitable nor are all grades of a single product equally suitable. Also various grades of commercial cresylic acid differ in suitability. Therefore, manufacturers are cautioned to prepare a trial laboratory batch from every set of ingredients and to prove its conformity with specifications (a) and (b) above, before proceeding with manufacture on a factory scale.